VIA : _____ DISPATCH NO. [redacted] 25X1
SPECIFY AIR OR SEA POUCH

~~SECRET~~ CONFIDENTIAL
CLASSIFICATION

26 JUL 1954

TO : Chief, [redacted] DATE : _____ 25X1
ATTN: [redacted] 25X1
FROM : [redacted] RJR INFO: Chief, FE 25X1
[redacted] 25X1
SUBJECT : GENERAL- AQUATIC
SPECIFIC- Hot Dip Tanks

Reference: [redacted] dated April 29, 1954 25X1

1. We wish to thank you for the technical information on hot-dip tanks you forwarded us in referenced dispatch. The information was used to corroborate the Japanese specifications of a local firm for a special design tank which we had designed and fabricated for the [redacted] installation. This tank had inside dimensions of 60 x 12 x 18 inches, the largest sized tank with which we had worked. The final electrical specifications were 220 volts, 3 phase drawing, 45 amperes, with a rated capacity of 15 KW. The cost of this tank was $750.00. 25X1

2. A comparison of the features of the Japanese built tanks and U.S. built tanks has been made. In the Japanese tanks no pre-melt area is provided nor is heat transfer oil used. Heat is transferred directly by radiation from nickel-chrome heating elements wound on mica plate. Insulation between the inner and outer tanks is provided by mica powder. We understand that hot-spots may be expected but none have been observed. The manufacturer states he has investigated oil transfer baths and feels they are unnecessary when cost versus performance is considered. We have been quite satisfied with the two Japanese tanks we have.

3. In view of your interest in our packaging facilities available here, attached is a report describing the present installation.

[redacted] 25X1

[redacted] 25X1

22 July 1954

Attachments:
1 - Report
2 - 3 Pictures
Distribution:
3 - Addressee w/att. a/s
2 - Chief, FE
1 - Chief, [redacted]

~~SECRET~~ CONFIDENTIAL
CLASSIFICATION

25X1

36250-Army-AG Admin Cen-FEC-2/53-25M

SECRET

PACKAGING FACILITIES AT KURIOT/PBSUBURB

CONFIDENTIAL

A. Historical

1. In early 1952 requirements were placed on the then [redacted] 25X1
[redacted] to investigate various burial packaging 25X1
materials and techniques in connection with the current caching operations. Among the materials investigated were test quantities of various formulae of hot-dip stripable plastic coatings and cold application coatings. Results appeared promising and larger quantities of hot-dip material (trade name: Seal-Peel), several varieties of cold application compounds, two electric melting tanks, and a spray unit for application of cold materials were all procured on the local economy. The equipment was set up in a small shed, and a continuing investigation occured where almost every conceivable type of item that would be cached in clandestine operations was packaged using the plastic coatings. In the absence of any other material or superior technique it was soon apparent that plastic coatings, particularly the hot-dip types, were admirably suited for burial protection agents.

2. Until early 1954, the activities of the packaging facility at [redacted] 25X1
were confined to additional experimentation and to filling limited requests for packaging from other [redacted]. Consider- 25X1
able effort was made to inform other [redacted] with the experimental 25X1
results obtained at [redacted] and to encourage reference of special 25X1
packaging problems there for test.

3. By April 1954 the volume of requests for support packaging, as distinguished from test quantities, had increased greatly. Korea Mission expressed a desire to establish a hot-dip plastic packaging unit in Seoul but the request was declined by [redacted]/Logistics and 25X1
Korea Mission was instructed to send their cache materials to [redacted] 25X1
for treatment. The caching requirements for this Mission were quite large and it was anticipated that there would exist a need for packing and dipping approximately 30 caches of about 50 pounds each per month for the summer operational season. In addition to this requirement, [redacted] levied a requirement for the processing of all the agent signal 25X1
equipment to be used by Korea Mission during this operational season. Because of this sudden increase in support work, experimental work was reduced accordingly and was limited to work on specific problems in cache preservation from [redacted] 25X1

4. To meet the increased work load imposed by the new development, the entire packaging facility was moved to a different building where the tanks and other equipment could be arranged for maximum output. An additional melting tank was purchased and an overhead trolley conveyor built.

SECRET CONFIDENTIAL

5. At the present, the equipment is being installed and various systems tested to determine the physical arrangement suitable for maximum production. An electric dipping hoist is being designed and a spray booth is being constructed for application of cold formulae. Although the packaging unit is not yet complete, it is nevertheless capable of turning out work at a rate in excess of four times the amount previously possible. The entire production assembly is expected to be completed in six weeks and will, at that time, be capable of completely processing 25-30 caches of 30 pounds each per day of operation. Except in very unusual instances, i.e. unusually bulky or unweildy items to be dipped, the unit will be manned by a single operator. Indigenous personnel are used except in cases where the material or labeling are of a sensitive nature.

B. Anticipated Activities

25X1

C. Equipment

1. Equipment now being utilized in the packaging facility is as follows: 25X1

(a) Tank, electric, melting, thermostatically - controlled, Seal-Peel Corp. Model Number 7BR20, with inside dimensions 7" x 20" x 12" Deep. Cost $378.12. Electrical current characteristics: 220 v. single phase, 2,300 watts.

(b) Tank, electric, melting, thermostatically controlled, mfg. by Nichinan Sangyo K.K. (Japanese), with inside dimensions 27.5" x 15" x 18" Deep. Tank is made of hard chrome-plated steel sheet 1.8 mm. thick. Outer frame is constructed of steel sheet brazed on angle iron. Heater elements are located on three sides and the bottom of the tank and consist of nickle-chrome wire mounted on mica insulators. Detector, located between tank wall and heater controls the temperature with an accuracy of 5°F. over a range of 100°F. to 450°F. The detector operates an auxilliary relay, switching the murcury relay to the desired temperature. The entire tank is finished with a black crackle-finish enamel and chrome-plate top. Four rubber-tired wheels are mounted on the tank for easy handling. Cost: $500.00. Current characteristics: 220 v., 3 phase, 30 Amperes, 10 KW.

(c) Tank, electric, melting, thermostatically-controlled, mfg. by Nichinan Sangyo K.K. (Japanese), with inside dimensions of 27.5" x 15" x 15" deep. Construction is identical to (2) above with the exception that the heating elements are on four sides only. Electrical current characteristics: 220 volts, 3 phase, 30 Amperes, 10 KW. Cost: $465.00.

(d) Spray tank, 15 gallon, w/stirring rod, two spray guns, moisture trap, hoses and pressure gauges. U.S. Manufacture. Cost: approximately $110.00.

(e) Overhead trolley conveyor, with rollers and hooks, 15 packages, 26 feet long. This conveyor system, for passing dipped objects along the processing line, was constructed of garage-door track and scrap angle iron recovered from a junk pile. Hanger hooks were constructed by an indigenous machine shop and the total cost of the conveyor system is $20.00.

(f) Air compressor, wheelbarrow-type portable, 6.hp gasoline engine. 5 cu. ft./min.. Armed Forces Procurement, cost unknown.

(g) Iron, electric, Japanese. These small irons, originally intended for ironing kimonos, are similiar in appearance to a tiny American type travel iron mounted on a long handle. They resemble somewhat the irons used to seal deep-freeze bags. We have found these Japanese irons perfect for sealing the cut ends of suspension strings used in hot-dipping heavy objects. They maintain temperature quite well and produce a smooth, glossy finish when used to smooth bubbled coating, drip marks etc. Cost: $1.00 each. Two of these are used almost constantly during our dipping operation.

(h) Exhaust fan, 2' diameter, electric motor. Cost: $55.00

(i) Can Sealer (Sears Roebuck) Hand operated to accept No. 2 or No. 3 cans, used for packaging such items as detonators and blasting caps which will not safely accept high temperatures.

2. Additional equipment contemplated for the packaging unit will include an electric dipping hoist with ¼ hp. motor, construction of a spray booth for greater safety in application of the inflammable cold formulae, hose fittings, and an outside lean-to to house the gasoline-powered air compressor. The electric hoist will approximately cost $135; the cost of the balance of small items is expected to not exceed an additional $100.

3. Plant construction - The packaging unit is housed in a frame-plywood room in one end of a pre-fabricated Butler building. The room is 30' x 12' x 10' high and is provided with electric heat and a telephone. No running water is available at present but the operation of the plant is not hampered by this. A four-burner electric stove is used for baking out moisture from muslin, string etc. used in wrapping. Four large stainless-steel top tables provide a large, clean, non-smagging work surface. All lighting is fluorescent.

4. Personnel - Since Fall 1952 the production Packaging Unit work has been done almost single-handed by one indigenous laborer of 20 years of age. The misconception evidenced by most personnel from other [redacted] has been that the application of hot-dip and cold formulae plastics is a job for highly trained personnel. The young man who has been doing most of the dipping is intelligent but certainly no packaging engineer. Nevertheless, it shows that with only a moderate amount of on the job instruction, indigenous personnel can learn to operate the equipment and do satisfactory workmanship with packaging plastic.

25X1

Sanitized Copy Approved for Release 2011/05/04 : CIA-RDP78-03642A000500010061-8